

REMARKS

In the Office Action dated October 13, 2005, claim 8 was objected to as lacking proper antecedent basis. Applicant amends claim 8 to delete the term “edge of said impermeable body”, which applicant agrees lacks antecedent basis as pointed out by the Examiner. The correct term that does have antecedent basis is “edge of said honeycomb”. Applicant has amended claim 8 accordingly.

Claims 1, 3, 4, 6 and 8 were rejected under 35 U.S.C. 103(a) as being unpatentable over the European patent document (EP0786330A2) in view of Brayden et al or Heier. Applicant amends claim 1 to more particularly point out the present invention and distinguish it from EP0786330A2. Specifically, claim 1 has been amended to require that an inlet be located through the barrier. Support for this limitation is found in Paragraph 29 of applicant’s specification and FIGS. 3-6 at 72, 172, 272 and 372, respectively. The inlet through the barrier is provided so that gas or liquid may be introduced into the honeycomb during molding to provide a counter pressure against the mold pressure (See the last three lines of Paragraph 9).

EP0786330A2 is directed to a resin transfer molding (RTM) process in which liquid resin is injected into “dry” fibrous reinforcement material that is already in position on the honeycomb (Page 2, line 55 to Page 3, line 35. EP0786330A2 surrounds the honeycomb with a resin/moisture barrier for the specific purpose of preventing the liquid RTM resin from filling up the honeycomb cells. This is completely different from applicant’s invention, as now claimed, where an inlet through the barrier is provided for the purpose of providing a counter pressure against the skin to reduce the amount of voids and other imperfections in the adhesive and/or skins (Paragraph 8 of applicant’s specification).

One of ordinary skill in the art would not be motivated to provide any kind of inlet through the barrier of EP0786330A2, because the specific purpose of the barrier

in is to prevent greater than 95% (preferably 100%) of the open cell cores from being filled with resin during the RTM process (Page 3, lines 10-12). The barrier in EP0786330A2 is used for a substantially different purpose than applicant's barrier and applicant amends claim 1 to point out this differences

With regards to the secondary references, Brayden et al is directed to an autoclave process where a tube is inserted into the honeycomb for the specific purpose of providing a pressure balance between the autoclave and the honeycomb (Col. 2, lines 17-32). Brayden et al does use an impermeable bag 20. However, the bag 20 is used to surround the entire composite structure (Col. 3, lines 49 and FIG. 3). Brayden et al does not disclose an inlet through an impermeable barrier located between the honeycomb and the skins, as now claimed by applicant. In addition, one of ordinary skill would not be motivated to combine Brayden et al with EP0786330A2, because they are directed to different molding processes. Brayden et al is directed to an autoclave process where the internal honeycomb pressure is controlled during molding to match the autoclave pressure to prevent core collapse (Col. 2, lines 33-64). EP0786330A2 is directed to an RTM process where the honeycomb/skins are subjected to a vacuum during the molding process (Page 5, lines 2-7).

Heier is a secondary reference that, like Brayden et al, is directed to providing pressure to the interior of the core material during molding to counter an externally applied pressure (Col. 3, lines 5-11). Heier, also like Brayden et al, does not disclose the use of an inlet through an impermeable barrier located between the core and the skins as required by the present invention. In addition, one of ordinary skill would not be motivated to combine the teachings of Heier with EP0786330A2 because they are directed to different molding processes.

It should be noted that applicant has also amended claim 1 to delete the requirement that the inside surface of the barrier be bonded to the first and second panel surfaces of the honeycomb with an adhesive. The limitation to the use of an adhesive to provide the bond, which was originally present in claim 5 (canceled), has been reintroduced in new claim 28. Applicant submits that removing "with an adhesive" as a

requirement in claim 1 is appropriate in view of the addition of an inlet through the barrier, which provides a patentable distinction over the art of record.

With regards to the rejection of claim 8 that was specifically set forth at the end of Paragraph 5 of the Office Action, applicant submits that the amendment to claim 1 provides a patentable distinction over the art of record, as discussed above. Accordingly, claim 8, which depends from claim 1, is also patentable over the references of record.

In view of the above amendments and remarks, applicant respectfully requests that this application be reconsidered and that the claims, as amended, be allowed.

Applicant also encloses a Power of Attorney and Correspondence Address Indication Form.

Respectfully submitted,

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